THE ECONOMICS OF UPWARD PRICING PRESSURE – UNDERSTANDING THE PARKLAND CASE

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The Parkland case is the first contested merger in which an upward pricing pressure ("UPP") theory of harm was presented. In most of the local geographic markets of concern to the Bureau the overlap was between an independent dealer supplied at wholesale by Parkland and a Pioneer corporate retailer station. The Bureau alleged that post-merger Parkland would increase retail prices at its corporate stations and also increase its wholesale margin to its dealer stations with the expectation that these dealers would increase their retail prices. The definition of local geographic markets and the attribution of volumes sold at dealer stations to the merging firms for the purposes of evaluating the competitive effects of the transaction were key drivers of the Bureau's concerns. In this commentary, we explain that while Parkland theoretically may have some incentive to unilaterally increase its wholesale margin post-merger, this incentive is limited by a number of factors that were not addressed by the Bureau's economic experts. Similarly, the Bureau's economic expert did not address the complications that Parkland would face as a wholesaler in seeking to facilitate coordination among downstream retailers.

L'affaire Parkland porte sur la première fusion contestée où fut présentée la théorie du préjudice causé par l'escalade des prix. Dans la plupart des marchés géographiques locaux qui intéressent le Bureau de la concurrence, le chevauchement concernait un détaillant indépendant approvisionné en gros par Parkland et une station d'essence Pioneer. Le Bureau soutenait qu'après la fusion, Parkland augmenterait les prix de détail dans ses stations d'essence ainsi que sa marge bénéficiaire de gros sur la vente d'essence à ses détaillants indépendants en s'attendant à ce que ceux-ci augmentent leurs prix de détail. Il s'est notamment penché sur la définition des marchés géographiques locaux et a attribué aux entreprises fusionnantes les volumes vendus chez les détaillants afin d'évaluer les effets concurrentiels de la transaction. Dans cet article, nous expliquons que si, théoriquement, Parkland retirerait peut-être un certain avantage d'une hausse unilatérale de sa marge bénéficiaire de gros après la fusion, cet avantage est limité par plusieurs facteurs que n'ont pas considérés les experts en économie du Bureau.

De même, ces derniers n'ont pas non plus pris en compte les complications que Parkland, en tant que grossiste, rencontrerait en cherchant à faciliter la coordination entre les détaillants du secteur d'aval.

In its statement regarding Parkland's acquisition of Pioneer, the Competition Bureau ("Bureau") described its application as "relatively novel in that [the Commissioner] alleged that the merger would increase the ability and incentive of the merged entity to unilaterally increase prices and of all competitors in the markets to more effectively coordinate pricing, to the detriment of competition."[2] The Bureau was concerned that post-merger Parkland would increase its retail prices at its corporate stations and also increase its wholesale margin to its dealer stations with the expectation that these dealers would increase their retail prices. In locations where post-merger Parkland and Pioneer corporate and dealer stations accounted for a large share of volume, the Bureau was concerned that the increases in wholesale and retail prices by the merged firm would lead rival stations to also increase their retail prices. In this way, the merger was alleged to substantially lessen competition through both unilateral and coordinated effects. Ultimately, the theories of harm were not fully adjudicated as a settlement between the Commissioner and Parkland was reached through mediation, with a Consent Agreement filed with the Competition Tribunal further to which Parkland agreed to a remedy in eight local markets.[3] In this commentary, we discuss the economic theory advanced by the Bureau in the Parkland case, identifying a number of issues that we believe would have likely been further tested had the case not settled.

The Bureau's expert economic evidence with respect to Parkland's incentives and ability to increase retail prices in the local areas of concern relied on calculations of upward pricing pressure, which in turn were translated into price effects.[4] Deadweight losses to the economy were calculated from the estimated price effects and an elasticity estimate. Economic evidence with respect to whether the merger could increase the likelihood of coordination was based on consideration of various factors that are relevant to determining whether the conditions that allow firms to coordinate existed in the local areas of concern.[5]

While the Parkland case is the first contested merger in which the Bureau articulated how unilateral harm to competition can occur through upward pricing pressure ("UPP") indices, and hence the case appears "new" or "novel", fundamentally the old standards of geographic

market definition and market concentration were the foundations on which the unilateral and coordinated effects theories of harm were built. Both of the Bureau's economic experts relied on the Bureau's industry expert's report detailing which stations should be included in each local market. With respect to market concentration, the Bureau's attribution of volumes sold at dealer stations to the merging firms for the purposes of evaluating the competitive effects of the transaction was critically important to the share calculations.[6]

Attributing Dealer Volume to Parkland

The Bureau's decision to attribute dealer volumes to Parkland, where Parkland was the wholesale distributor to the dealer, was based on the fact that dealers are under exclusive, long-term contracts with the wholesale distributor for supply of fuel and as a result, "[d]uring the terms of these contracts, Parkland and Pioneer can increase the wholesale price of gasoline charged to dealers at any time, thereby influencing retail gasoline prices set by those dealers."[7] In its Statement about the case, the Bureau indicates that "[t]he cost of fuel is the most important factor in determining the retail price of gas, and when Parkland exercises its contractual right to increase wholesale prices to a dealer, those price increases are typically passed along to consumers."[8]

A key fact that is not stated is that Parkland does not control the majority of the wholesale cost of gas charged to its dealers. Parkland is not a refiner, but instead is a wholesale distributor that buys gasoline from refiners and then supplies its dealers and corporate stations. The majority of the cost of gas is the refiner controlled "rack" price which is not set by Parkland, and is unaffected by the Parkland/Pioneer transaction.[9] Instead, there is a wholesale *margin* beyond the rack price that is controlled by Parkland, but this represents a much smaller component of the dealer's cost, and an even smaller fraction of the dealer's retail price, than the rack price. The merger did not affect competition among wholesale suppliers to dealers.

Given that wholesale margins are a very small part of the retail price, if Parkland were to seek to materially increase the retail price of gas charged by its dealers, Parkland would have to double or triple its wholesale margins and a substantial proportion of the wholesale margin increase would then need to be passed on by dealers into retail prices. It is far from evident that Parkland has such an incentive or ability.

- First, the percentage change in wholesale margins that would be needed to materially increase retail prices is dramatic, and at first blush seems unlikely.
- Second, Parkland does not set a different wholesale margin for each dealer, but instead has the same wholesale margin specified for all dealers within a pre-defined geographic pricing region or 'zone', and typically many dealers within a pricing zone are not located in geographic markets where Parkland dealers overlap with Pioneer stations and the Bureau has a competition concern. In light of this, dramatically increasing the wholesale margin to all dealers within a pricing zone would mean increasing wholesale prices to numerous dealers in non-overlap areas. If Parkland were to attempt to do this at the levels that would be needed to generate a material increase in retail prices, Parkland's dealers in areas without competitive concern would sell far less gasoline at their stations such that Parkland risks losing substantial wholesale volumes as its dealers in these locations sell less. Volume losses in these areas would need to be considered to determine whether Parkland would be likely to increase wholesale margins in the locations of concern to the Bureau given the use of regional or zone pricing for setting wholesale margins.[10]
- Third, increasing wholesale margins would make it more difficult for Parkland to recruit new dealers, so the potential volume losses from failing to gain new dealers (who may decide to enter into arrangements with wholesale distributors other than Parkland) would need to be taken into account when considering Parkland's incentives to increase wholesale margins to a few dealers in the local areas of concern.

Alternatively, if Parkland was unlikely to have doubled or tripled its wholesale margins and its dealers were unlikely to substantially pass on such margin increases into retail prices then Parkland would not have had an incentive to increase prices to its dealers.[11]

Upward Pricing Pressure Theory in Parkland

Upward pricing pressure in Parkland differs somewhat from the usual way that we think about UPP in horizontal merger cases because of the vertical aspects of the case in that Parkland would increase the wholesale margin to its dealer stations while increasing its retail prices at corporate stations. But like the usual horizontal case, the incentive to increase prices

at any station post-merger (as measured by the UPP index) depends on the diversion between the merging firms' stations in the local area and the variable margin that is earned on the diverted volumes. Where a dealer station is involved, the variable margin that should be used in the UPP derivation is Parkland's wholesale margin, which is smaller than the retail margin earned at a corporate station.

Importantly, UPP is a measure of the potential *incentive* to increase price following a merger. UPP is *not* a measure of predicted price increases from a merger.[12] Customer and rival responses are needed to know if a firm with an incentive to increase price will have the ability to do so. Price effects also depend on any offsetting downward pricing pressure that would come about due to the potential volume losses described above that are relevant for determining the likelihood of very large increases in Parkland's wholesale margin as well as any reductions in variable costs generated by the merger through increased volume discounts for example.

With respect to measuring the incentive to increase prices embodied in the UPP index, diversion between the merging firms is relevant for the unilateral theory of harm, while diversion between the merging firms' stations and those of rivals is relevant for the coordinated theory of harm. If the profits to be earned on any potentially diverted volumes between the parties' corporate and dealer stations are too low to lead to material price increases to retail consumers, the merger will not substantially lessen competition. Furthermore, the volume losses to rival stations in the local areas of concern may be sufficiently large to mitigate any incentive that Parkland might otherwise have to increase retail prices at corporate stations or increase wholesale margins to dealer stations. As well, the potential volume losses to rival stations will affect rival stations' incentives to engage in cooperative conduct with Parkland post-merger. If rival stations can earn more by not immediately following price increases initiated by Parkland given the potential volumes that would be diverted to them, rival stations are unlikely to engage in cooperative conduct and Parkland is unlikely to seek to increase prices on the expectation that rival stations will engage in coordinated behaviour.

The accuracy of the UPP value depends on the accuracy of its inputs. If diversion is assumed to be proportional to share then UPP depends on market shares and the variable margin. So if the geographic market is too narrowly defined then the market shares of Parkland and Pioneer

are inflated (assuming that broadening the market does not bring proportionally more stations of the merging parties into the market) and the diversions used in the UPP measure are too large, leading to an overstatement of the incentive to raise price. This is not any different than the accuracy of market shares in predicting competitive effects – if the relevant market is well defined then market shares are informative (albeit not determinative) about potential price effects. If the market is not properly defined then market shares (and UPP values based on market shares) are not informative about likely competitive effects.[13]

The relevant geographic market in a number of the local areas of concern to the Bureau was debatable. In several locations, the evidence from Pioneer's competitor tracking, Pioneer loyalty customer purchases, and Pioneer daily station pricing supported broader geographic markets. Pioneer tracks pricing at a large and diverse number of stations across the broader geography, and Pioneer did not consider Parkland to be its closest rival and often included many stations in a broader area as key competitors.[14] These facts indicate that diversion between the Pioneer station and the Parkland independent dealer in these locations is limited, and less than would be found by assuming diversion is proportional to share within the alleged geographic market.

Furthermore, the individual Parkland and Pioneer dealer and corporate stations are quite different from each other in terms of amenities and location, such that, even without debating the size of a given geographic market, diversion based on shares of volume may not be appropriate. For example, as noted, in some locations Pioneer did not include Parkland dealer stations in its tracking of rival stations against which Pioneer adjusted its prices. If Pioneer does not track the Parkland dealer station's prices this suggests diversion between these stations is likely to be low. Given the differences that existed across stations, even if Parkland increased wholesale margins to a specific dealer expecting that dealer to pass on higher wholesale margins in the dealer's retail prices, it is not obvious that this would lead sufficient numbers of customers switching to the Pioneer corporate station in the particular town to make the increase in Parkland's wholesale margin profitable. If diversion between these stations is low (especially given low wholesale margins), the measured UPP may be too low to generate retail price increases that are material enough to be considered a "substantial" lessening of competition.

Moreover, stations within and outside any particular geographic boundary can affect diversion and thwart unilateral or coordinated increases in retail prices. The extent of substitution between stations within the relevant geographic market can also vary and there may be volume losses to stations outside the relevant geographic market that also matter. Of relevance with respect to gasoline is that consumers are highly sensitive to price increases such that they will switch their purchases to different stations for very small differences in retail prices. As well, rival stations can provide a large supply response to any attempt to increase price because they sell close substitutes and are unconstrained in their ability to increase supply.

Quite apart from the set of competitive options available to a particular set of local customers, gas stations cannot charge different prices to different customers based on location. A single posted price is charged to all customers whether they live near or far from the particular station. As a result, the volume that individual stations gain from distant customers who have additional alternatives will affect the station's incentive to raise price even if available to them nearby retail customers tend to purchase most of their volumes locally. For example, consider the following hypothetical where there is a set of retail customers who only shop at the local station such that this station is a monopolist seller to the local customers. If these local customers do not account for a large enough share of the station's total volumes then the station will not find it profitable to increase prices notwithstanding that it is monopolist to local customers.[15] If distant customers account for a sizeable fraction of this station's volumes then increasing prices to all customers risks losing sales from distant customers who have other alternatives available. Many of the stations of concern in the Parkland case have this characteristic.

Coordinated Effects Concerns of the Commissioner

The only facts presented by the Bureau's economic expert with respect to coordinated effects that were specific to the individual markets of concern were market shares and four-firm concentration ratios ("CR4"). However, for the reasons noted above, within properly defined geographic markets that include neighbouring areas, the transaction changes market concentration marginally, such that there is unlikely to be any material change in the incentives or ability of firms in the market to exercise market power through coordinated behaviour. Other claims with

respect to the likelihood of coordination made by the Bureau's expert were not addressed with any reference to the facts in the local markets of concern, but were general conditions that would exist across any local retail gasoline market throughout Canada.[16]

Predicting when coordination is more likely is difficult. Industries that might appear to be highly susceptible to collusion based on the presence of certain facilitating factors often exhibit competitive outcomes. Importantly, there must be a means by which the coordinating firms are able to reach agreed-upon terms of coordination, monitor adherence to these terms and punish deviations from any agreed-upon terms. In Parkland, there was no articulation of how Parkland's pricing prior to the merger made coordination less likely or effective while post-merger such coordination would become more likely and effective. Other than in Kapuskasing, where two corporate stations were combined, the merger did not change the number of independent decision-makers with respect to retail pricing. Independent dealers (including those buying from Parkland) will continue to set retail prices pre- and post-merger. Further, any influence that Parkland or other wholesale distributors have on independent dealers' retail gasoline prices is very limited given the small fraction of the retail price that is accounted for by the wholesale margin earned by the distributor. In such circumstances, there is likely to be no meaningful change in the likelihood or effectiveness of coordination among stations by combining Parkland's wholesale distribution business with Pioneer's corporate stations.

Furthermore, any attempts at coordination may be ineffective or quickly break down when there is competition from outside the "coordinating group" or conflicting incentives among members of the coordinating group to accommodate price increases. With respect to the first point, even if geographic markets were as narrow as the Bureau claimed, in a number of local areas the evidence indicated there is considerable competition from outside the local area that would thwart successful coordination. With respect to the second point on incentives among members of the coordinating group, the Bureau's economic expert did not address the fact that many rival stations within each local area are independent dealer stations. Independent dealers do not necessarily have the same incentives as corporate stations. As well, in order for firms to effectively coordinate to increase retail prices and then sustain these increased retail prices, firms must have effective punishment strategies

for any firms that deviate from agreed-upon terms. Such punishment strategies are typically modelled by economists as price reductions.

But in markets where Parkland is the wholesale supplier to independent dealers, Parkland's ability to implement a retail price reduction as a punishment strategy is extremely limited. Wholesale margins are generally very small. Therefore, even if Parkland reduced its wholesale margin to zero and the dealer passed on the entire margin reduction into a lower retail price, the reduction in retail prices would likely be too small to serve as an effective punishment to a 'cheater' from a coordinated understanding to increase prices. Furthermore, since the retailer is under no obligation to reduce its retail price if Parkland reduces its margin, it may choose not to do so at all. As a wholesale distributor, Parkland does not have sufficient control over retail prices to play a significant role in effecting coordination at the retail level. Given this, where Parkland is the wholesale distributor to dealers, it may not have the ability or incentive to disrupt any attempts at coordination by other market participants, including the dealers supplied by Parkland, such that the merger would not have any effect on the likelihood of coordination. This is true before and after the merger.

More generally, dealers and their wholesale suppliers do not necessarily have the same ability or incentive (and may in fact have conflicting incentives) to reach an understanding, detect deviations from understandings, and punish cheaters. As a simple example of conflicting incentives, for a given wholesale margin the wholesaler would prefer its dealer to set a lower retail price than the price that maximizes the dealer's profit, because a lower price would increase the dealer's volume and therefore the wholesaler's profit. A related consideration is that wholesalers, dealers, and corporate stations have different preferences about the level of the coordinated price, which makes reaching a stable agreement more difficult. They also likely have different abilities to detect deviations from an agreement, and as a result they would have different views about whether to implement a punishment. A credible theory of coordination in a retail gasoline market when there is a mix of vertical structures would first acknowledge that these differences exist, and would then account for the differences in incentives of dealers, wholesale distributors, and corporate stores in any theory of how a merger increases the likelihood of coordination. The Bureau's experts did not address which competing stations were dealers supplied by wholesalers and which were corporate stations. Instead, all stations were

treated as corporate stations thereby ignoring differences in incentives between dealers and wholesalers of rival stations.

Conclusion

To conclude, while the economic theory of harm articulated by the Bureau in the Parkland case was theoretically plausible, it is far from clear that the facts would have been found by the Tribunal to clearly show that a substantial lessening of competition was likely to result in the local markets of concern. As described herein, there were numerous factors suggesting that Parkland would have very limited incentive to increase its wholesale margins by the dramatic amounts needed to pressure dealers into materially increasing their retail prices. Even if some incentive to increase retail prices at corporate stations and increase wholesale margins to dealers existed post-merger, rival stations could readily disrupt any attempted price increase, or be perceived as likely to disrupt any such attempt which would remove Parkland's incentive to increase price and wholesale margins in the first instance. With the mediated settlement, it is unknown how the Tribunal would have decided the matter.

Endnotes

[1] Margaret Sanderson was an economic expert for Parkland for the interim injunction proceeding.

[2] Competition Bureau statement regarding Parkland's acquisition of Pioneer, April 1, 2016.

[3] The eight local markets subject to the consent agreement are Bancroft ON, Hanover ON, Innisfil ON, Kapuskasing ON, Tillsonburg ON, Lundar MB, Neepawa MB and Warren MB (*The Commissioner of Competition v Parkland Industries Ltd and Parkland Fuel Corporation*, CT-2015-003). The Commissioner's application alleged harm in 14 local markets.

[4] Competition Bureau, Media Release, "Competition Bureau statement regarding Parkland's acquisition of Pioneer" (April 1, 2016) at page 5 [*Competition Bureau Statement*] (discusses the economic work of Dr. Igal Hendel).

[5] *Ibid* at 7 (discusses the economic work of Dr. Marcel Boyer).

[6] If volumes of dealers had not been attributed to Parkland, there was only one location (Kapuskasing) that combined corporate stations and also had high post-merger market shares.

[7] *Competition Bureau Statement, supra* note 4 at 3.

[8] *Ibid* at 4.

[9] Refiners in Canada include Imperial Oil, Shell, Suncor/Petro-Canada, and Ultramar.

[10] Parkland could conceivably re-configure its pricing zones to mitigate this concern but it chose the current configurations to minimize administration and other costs.

[11] The merger might still have provided Parkland with an incentive to increase retail prices at its corporate stations (or those of Pioneer) but this would apply to far fewer stations than the number alleged to be of concern by the Commissioner.

[12] There may be some confusion about when to be concerned about a positive UPP. As long as margins are above zero and there is some substitution between the merging firms there will be a UPP value above zero. In the United States, UPP indices below 5% are of no concern. See Carl Shapiro, "Update from the Antitrust Division" (Remarks delivered at the American Bar Association Section of Antitrust Law Fall Forum, November 8, 2010), online: <https://www.justice.gov/atr/speech/update-antitrust-division>. UPP values between 5 and 10% are a grey area that typically results in further investigation but not necessarily enforcement action. UPP values are higher than 10% typically give rise to serious concerns.

[13] Even if diversions are not proportional to market shares, diversions between Parkland and Pioneer will likely be smaller if the geographic market is broadened if this increases the market share of competitor stations.

[14] Internal company documents relating to the geographic scope of competition are of course not determinative as to relevant geographic markets, but they are informative.

[15] In addition, local customers may have close substitutes in more distant areas, such as areas where they work or shop, since the incremental cost of travelling to a station in these more distant areas where customers already travel is minimal.

[16] Such evidence would be more compelling if accompanied by some evidence of the existence of coordinated behaviour in other markets with similar market structures as would be observed in the post-merger markets of concern, but no such evidence was provided by the Bureau's experts.